REMARKS/ARGUMENTS

Applicant acknowledges receipt of the Office Action dated March 8, 2005, in which the Examiner maintained his rejection of claims 1-28, 35-52, 55, 59-65 and 67 under the judicially created doctrine of obviousness-type double patenting over claims 1-35 of U.S. Patent No. 6,747,066; claims 29-31 and 33 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,980,840 (*Kellfisch et al*) in view of U.S. Patent No. 2,674,611 (*Hemminger*); and claims 33 and 34 under 35 U.S.C. § 102(b) as anticipated by Chemical Abstract CAPLUS DN:93:81017 (*Atroshcenko et al*).

Status of the Claims

Claims 1-32 and 34-67 remain as originally filed. Claim 33 has been amended.

Double Patenting

Applicant herewith files a Terminal Disclaimer with respect to U.S. Patent No. 6,747,066 to cure the obviousness-type double patenting rejection. Accordingly, claims 1-28, 35-52, 55, 59-65 and 67 are now in condition for allowance.

Rejections under 35 U.S.C. § 102(b)

Examiner again rejected claims 33 and 34 under 35 U.S.C. § 102(b) as anticipated by Chemical Abstract CAPLUS DN:93:81017 (*Atroshcenko et al*). Applicant respectfully submits that *Atroshcenko* cannot form the basis of a § 102 rejection because it does not teach all of the elements of the claim. See MPEP 2131; see also *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a

single prior art reference."). Nothing in the reference discloses removal of diatomic oxygen to levels of 1000 ppm or less.

Nonetheless, Examiner states that "the reference inherently teaches that the oxygen content of the synthesis gas is less than about 1000 ppm." In order for a reference to inherently anticipate the claimed invention must **necessarily** result from the process disclosed in the reference. *Electro Medical Systems, S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 32 U.S.P.Q.2d 1017 (Fed. Cir. 1994) ("The mere fact that a certain thing *may result* from a given set of circumstances is insufficient to prove anticipation."). Applicant respectfully submits that Examiner's position is based on nothing more than the **probability** or **possibility** that the process disclosed in *Atroshcenko* could result in oxygen levels of 1000 ppm or less. "Inherency may not be established by **probabilities or possibilities**. The mere fact that a certain thing may result from a given set of circumstances is not sufficient to establish inherency." *Scaltech, Inc. v. Retec/Tetra, LLC*, 178 F.3d 1378, 51 U.S.P.Q.2d 1055 (Fed. Cir. 1999), *revising*, 156 F.3d 1193, 48 U.S.P.Q.2d 1037 (Fed. Cir. 1998) (emphasis added).

Thus, *Atroshcenko* is not a proper § 102 reference for claims 33 and 34 as currently presented. Applicant respectfully requests that the Examiner withdraw the 102 rejection or establish that the teachings of *Atroshcenko* will necessarily result in oxygen levels of 1000 ppm or less each and every time they are performed.

Rejections under 35 U.S.C. § 103(a)

Examiner rejected claims 29-31 and 33 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5,980,840 (*Kleefisch et al*) in view of U.S. Patent No. 2,674,611 (*Hemminger*).

In order to establish a *prima facie* case of obviousness, certain criteria must be met. The MPEP and courts clearly require that there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the reference(s). MPEP § 2143. In addition, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *Id.* The failure to show any one of these criteria constitutes a failure to present a *prima facie* case for obviousness. Applicant respectfully submits that Examiner has failed to show any of the required criteria set forth in MPEP § 2143.

No motivation to combine Kleefisch and Hemminger exists

First, Examiner has failed to show that a suggestion or motivation to combine the cited references. Again, the Examiner begins by stating that the references when combined have all the elements of the claims at issue. However, "virtually all [inventions] are combinations of old elements." *Envtl. Designs, Ltd. v. Union Oil Co.,* 713 F.2d 693, 698 (Fed.Cir.1983). Examiner then concludes that "one of ordinary skill in the art would have been motivated to use a synthesis gas free of oxygen prior to converting the synthesis gas to liquid hydrocarbons in order to increase the catalytic activity of the Fischer-Tropsch synthesis catalyst or increasing the volume of the feedstock (synthesis gas) by removing the oxygen to increase the production of liquid hydrocarbons." The mere fact that all the elements may be found in multiple references and that they have related subject matter does not create a motivation or suggestion to combine those references. The statement is nothing more than a conclusory statement.

As a matter of law, such a conclusory statements are not sufficient to establish a *prima facie* case of obviousness. MPEP § 2143.01 (citing *Ex parte Levengood,* 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) and *In re Kotzab,* 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir.

2000)). Additionally, the teaching or suggestion to make the claimed combination *must both be found in the prior art*, not in applicant's disclosure. MPEP § 2143.02 (emphasis added); *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Examiner may not just state that the invention is obvious, he must actually show that a motivation to combine exists in the cited art.

As stated previously, in order for one skilled in the art to combine the references he/she would have had to read the later published reference, realize a problem existed and then be motivated to use the teachings from some other previously published reference to cure the problem. In other words, for the Examiner's rejection to have merit, one of ordinary skill would have to have read *Kleefisch*, understand that oxygen in the synthesis gas was a problem and then be motivated to use the teachings of *Hemminger* to remove the oxygen to a concentration of about 1000 ppm or less. That situation would never happen with the cited references.

Kleefisch teaches a process using an oxygen ion conducting dense ceramic membrane to separate, selectively, oxygen from an oxygen-containing gas to be used in a catalytic partial oxidation reaction. The separated oxygen is supplied directly to the partial oxidation reaction. As Examiner well knows, under these conditions oxygen will be the limiting reactant for the partial oxidation reaction. Accordingly, all of the oxygen will be completely consumed in the conversion of the hydrocarbon gas to molecular hydrogen and carbon monoxide. Even if this were not immediately evident to the casual reader, it is specifically made clear by *Kleefisch* in stating that complete oxidation of the natural gas feedstock is avoided. *Kleefisch*, col. 6, lines 53-65.

Because there will be no diatomic oxygen in the synthesis gas produced, anyone reading *Kleefisch* would never consider the issue of needing to remove it. Thus, even if *Hemminger* taught removing oxygen removal down to levels of about 1000 ppm or less (which it does not), one

skilled in the art would not care reading *Kleefisch,* because there is no need to search out ways to remove it.

Applicant urges Examiner to address this glaring problem in Examiner's position. Absent any showing by Examiner, there is no motivation to combine these references and the Examiner's rejection fails to pass the *prima facie* case for obviousness.

Kleefisch and Hemminger do not teach all of the limitations of the claims at issue

In addition, Examiner did not address the fact that the prior art references (when combined) must teach or suggest all the claim limitations. MPEP § 2143.03. *Kleefisch* is directed to the process for the preparation of synthesis gas and does not expressly teach a process for making hydrocarbons. Likewise, *Hemminger* does not teach preparing synthesis gas via partial oxidation and does not teach using synthesis gas having diatomic oxygen concentration levels of about 1000 ppm or less. Accordingly, *Kleefisch* and *Hemminger* do not teach all of the limitations of any of the claims at issue.

For all of these reasons, Applicant respectfully submits that no *prima facie* case for obviousness has been established and requests that the Examiner withdraw all rejections and allow the claims.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance. If the Examiner has any questions or comments, or otherwise feels it would be advantageous, he is encouraged to telephone the undersigned at (713) 223-4312.

Respectfully submitted,

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